


BROADBAND EXPANSION GRANT APPLICATION

For Fiscal Year 2022

<p>Primary Applicant (Name and Address):</p> <p>Bug Tussel Wireless, LLC 417 Pine Street Green Bay, WI 54301 (920) 940-0138</p>	<p>Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx. Refer to section 2.3 for detailed instructions.</p> <p>Applications are due and MUST be uploaded to ERF no later than: March 17, 2022 at 4:00pm (16:00) Central Time. Late applications will not be accepted.</p>
	<p>Contact for further information: PSCStatebroadbandoffice@wisconsin.gov</p>
	<p>Date: March 17, 2022</p>
<p>The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.</p>	
<p>Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.</p>	
<p>Name of Authorized Representative (Type or Print)</p> <p>Mitchel Olson</p>	<p>Title</p> <p>Chief Development Officer General Counsel</p>
<p>Signature of Authorized Representative</p> 	<p>Phone ()</p> <p>920.940.0138</p>
	<p>Date</p> <p>March 17, 2022</p>

SUMMARY OF GRANT APPLICATION

Primary Applicant Name Bug Tussel Wireless, LLC	Amount of Broadband Grant Request (round to nearest dollar) \$1,115,760
Federal Employer Identification No. 20-0284635	Amount of Matching Funds Pledged (round to nearest dollar) \$4,463,040
Contact Name and Title Mitchel Olson – Chief Development Officer General Counsel	Total Cost of Proposed Project (round to nearest dollar) \$5,578,800
Telephone Number 920.940.0138	Project Name R.O.A.D. to Digital Equality - Green Lake County
E-mail Address(es) mitchel.olson@bugtusselwireless.com	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) FTTH
Grant Manager, if different than Primary Applicant N/A	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other) Middle-mile / Last-mile
Grant Manager Contact Name N/A	Grant Manager Email Address and Telephone Number N/A
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations Green Lake County 571 County Road A Green Lake, WI 54941	
Brief Project Description (2 sentences) The Green Lake County R.O.A.D. to Digital Equality Project is the deployment of 89.1 miles of fiberoptic middle-mile, completing a ring throughout Green Lake County, while providing gigabit service to homes and business locations along that route. This project is “Open Access” allows for future expansion and encourages faster deployment of countywide fiber to the premise, which supports immediate economic opportunity for residents and businesses.	
Maximum Proposed Download Transmission Speed 1 Gbps	Maximum Proposed Upload Transmission Speed 1 Gbps
Minimum Proposed Download Speed to Customer Location 200 mbps	Minimum Proposed Upload Transmission Speed to Customer Location 200 mbps

<p>County or Counties served by this project</p> <p>Green Lake County</p>	<p>Community or Communities served by this project</p> <p>Town of Green Lake, Town of Mackford, Town of Kingston, Village of Kingston, Town of Brooklyn, City of Markesan, Town of Marquette, Town of Manchester, City of Green Lake, Town of Princeton, City of Princeton, City of Berlin, Town of Berlin, Town of Seneca, Town of St. Marie</p>
<p>List of the broadband service providers, if any, currently serving the area the applicant proposes to serve</p> <p>CenturyLink, Charter Communications, Northern Telephone, NSight, US Cellular</p>	
<p>Does proposed project serve an <u>unserved</u> area of the State, as defined in Section 1.4 of the application instruction? (yes/no)</p> <p>Yes</p>	<p>Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no)</p> <p>No</p>
<p>For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access).</p> <p>134</p>	<p>For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access).</p> <p>2,539</p>
<p>Of the improved business locations, how many locations are <i>unserved</i>?</p> <p>72</p>	<p>Of the improved residential locations, how many are <i>unserved</i>?</p> <p>1,358</p>
<p>For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no)</p> <p>Yes</p>	<p>Are there any programs available for low-income households to access low-cost service or discounts? (yes/no)</p> <p>Yes</p>
<p>Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no)</p> <p>Yes</p>	<p>Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no)</p> <p>Yes</p>
<p>Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no)</p> <p>Yes</p>	

FY22 Broadband Expansion Grant Application

Budget & Income Summary



Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

Grant Applicant:	Project:
Bug Tussel Wireless, LLC	R.O.A.D. to Digital Equality - Green Lake County

Budget

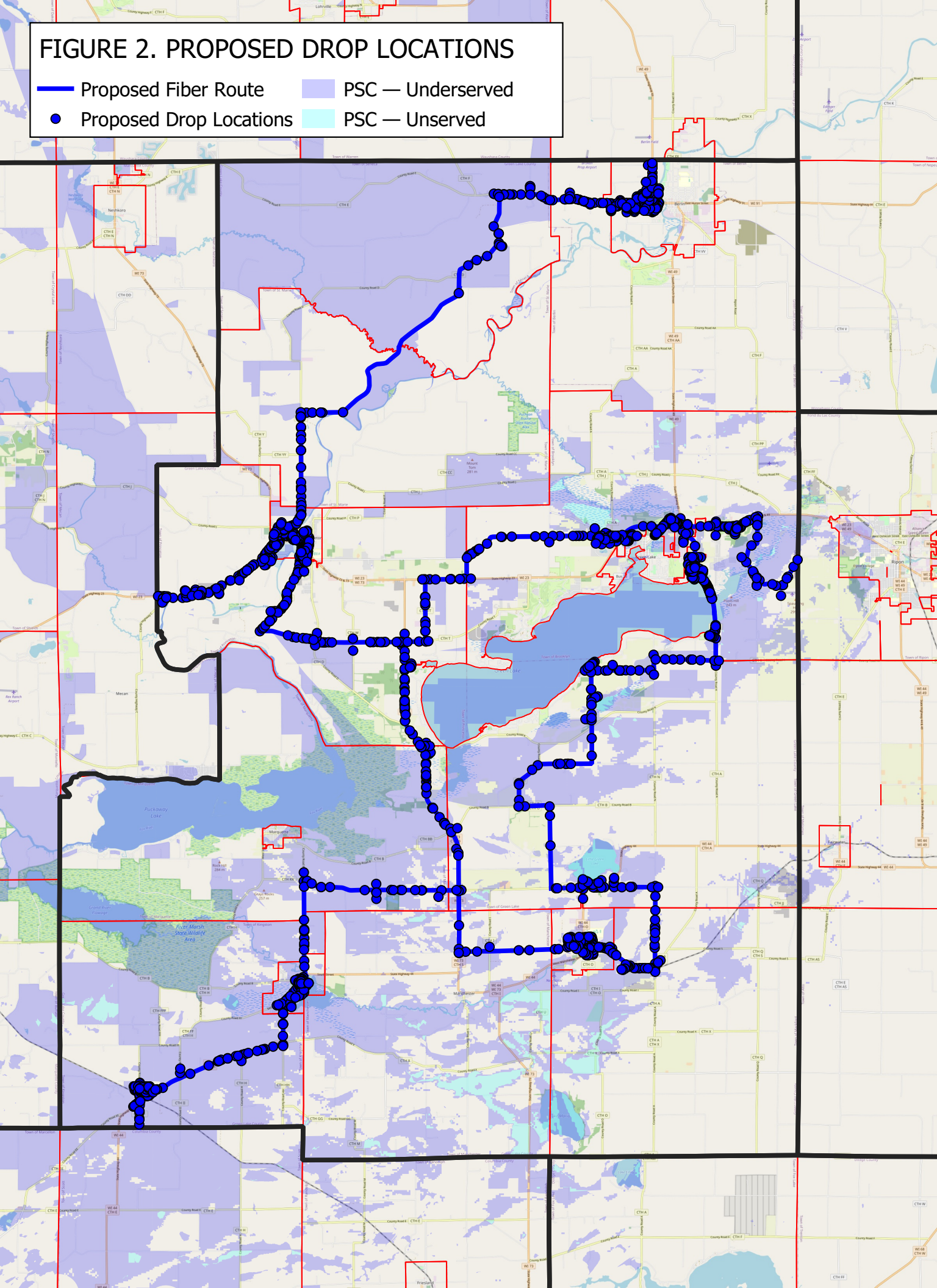
Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 704,316.60	\$ 2,817,266.40	\$ 3,521,583.00
2	Equipment	\$ 108,640.00	\$ 434,560.00	\$ 543,200.00
3	Supplies	\$ 233,483.60	\$ 933,934.40	\$ 1,167,418.00
4	Labor (Salary, Fringe)	\$ 47,044.80	\$ 188,179.20	\$ 235,224.00
5	Permitting, Licensing Fees	\$ 22,275.00	\$ 89,100.00	\$ 111,375.00
6	Travel	\$ -	\$ -	\$ -
7	Other	\$ -	\$ -	\$ -
Total:		\$ 1,115,760.00	\$ 4,463,040.00	\$ 5,578,800.00
80.0% match requested				

Pledged Contributions

#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	Bug Tussel Wireless / Green Lake County Partnership	Applicant	Cash	\$ 4,463,040.00
2				
3				
4				
5				
6				
7				
8				
9				
10				
Total:				\$ 4,463,040.00

FIGURE 2. PROPOSED DROP LOCATIONS

- Proposed Fiber Route
- Proposed Drop Locations
- PSC — Underserved
- PSC — Unserved



3.2 Mandatory application requirements

3.2.1 Applicant identification and contact information

a. The name and address of the entity applying for the grant, and the mailing address, telephone number and e-mail address of one or more contact persons representing the applicant.

Name of Entity: Bug Tussel Wireless, LLC ("Bug Tussel")
Mailing Address: 417 Pine Street
Green Bay, WI 54701

Contact: Mitchel Olson
Title: Chief Development Officer | General Counsel
Phone: 920.940.0138
Email: mitchel.olson@bugtusselwireless.com

b. If the application proposes a public-private partnership, the identity and contact information for all application partners.

Name of Entity: Green Lake County
Mailing Address: 571 County Road A
Green Lake, WI 54941

Contact: Mr. Harley Reabe
Title: County Board Chairman
Phone: 920.294.0824
Email: hreabe@greenlakecountywi.gov

c. The application must show that the applicant is an organization, a telecommunications utility, or a city, village, town, or county that has established a legal partnership or joint venture arrangement with an otherwise qualified organization or telecommunications utility, and as such meets the eligibility requirements set forth in Wis. Stat. § 196.504(1).

Hilbert Communications, LLC, and its subsidiary, Bug Tussel Wireless, LLC, are Wisconsin Limited Liability Companies, with their headquarters located at 417 Pine Street, Green Bay, WI 54701, and are Eligible applicants, as defined by §196.504(1)(ac)(1).

3.2.2 Description of the project

a. A static map and description of the area of the State that will be affected by the proposed project.

Please see the enclosed project maps, located on pages 5 and 6. The enclosed maps show the proposed middle-mile route throughout Green Lake County, but the impact will be well beyond the route as shown. Future expansion projects, utilizing the middle-mile, will reach beyond the original territory served in this phase of deployment. With these additional projects, all of Green Lake County will be affected by this project.

b. If the project area lies within a census block designated as served on the PSC Broadband Map, provide additional documentation to demonstrate the actual broadband service that is available in the proposed project area.

As shown in **Figures 1 and 2** above, there is a significant need for expanded broadband access in Green Lake County. Outside of the largest population center, the City of Green Lake, nearly the entire County is listed by the PSC as unserved or underserved.

Green Lake County lacks the infrastructure, specifically a fiber optic middle mile, necessary for expanded FTTP access in the future, including in those census blocks designate as served, albethem few and far between.

c. An explanation of how the proposed project will increase broadband access. Include information about the:

This project will increase broadband access by making last-mile fiber to the premises connections, in addition to installing middle-mile fiber with substantial capacity for expansion.

This project will have the capacity to service the 2539 households located along the fiber route, in addition to the 134 business. Of those, 1358 homes and 72 businesses are in underserved and unserved areas.

The fiber to the premises packages available will include a symmetrical 200 mbps download / 200 mbps upload option for \$64.99, in addition to a 1 Gbps download / 1 Gbps upload option for \$99.99.

d. A statement whether the proposed project is targeting the “last mile,” “middle mile,” or backbone portion of the broadband infrastructure.

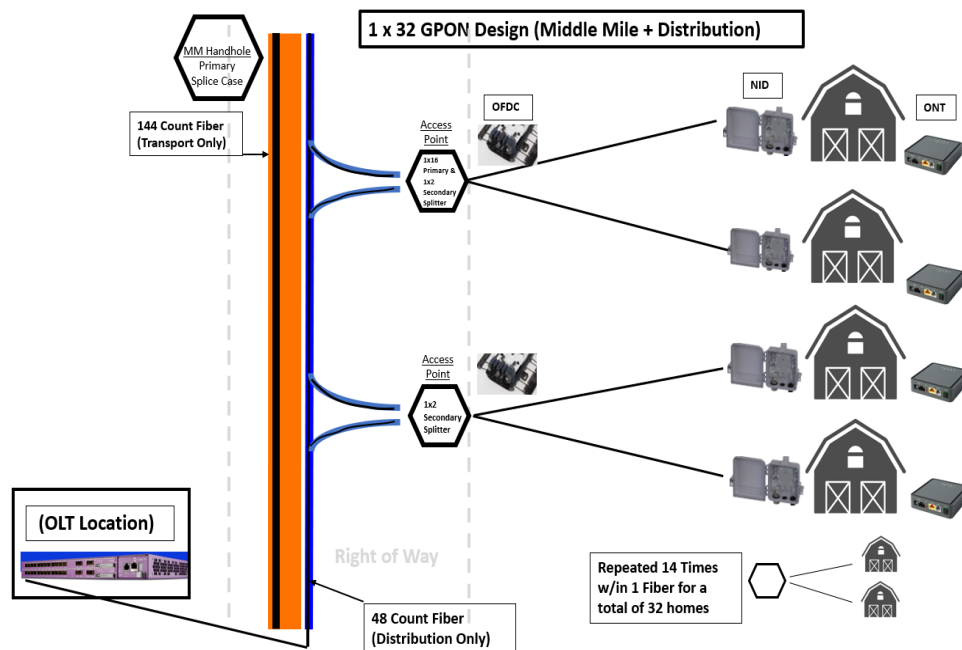
The proposed project will consist of both middle-mile and last-mile assets. The proposed project area is in significant need of additional backbone infrastructure and capacity, with last-mile connections being made along that route to promote a “dig-once” construction model.

e. A description of the broadband service to be provided, including estimated download and upload speeds, whether the speed is based on dedicated or shared bandwidth, and the technology that will be used. This description may be illustrated by a map or schematic diagram, as appropriate.

The network will consist of fiber optic cable connected to GPON/ONT electronics that will provide capacity for over 1 Gbps to each residence and business along the fiber route along with Dense Wave Division Multiplexing (DWDM) equipment for traffic aggregation, capable of supporting 200 to 800 Gbps.

As shown in Figure 3 below, a 144 strand transport fiber will be buried alongside a separate 48 strand fiber that will be utilized for fiber to the premises.

Figure 3 – Middle-mile and Distribution Design.



f. For middle mile projects:

At this time, no additional last-mile connections can be disclosed publicly. That said, Bug Tussel with itself be making last mile connections utilizing the middle-mile for transport.

Connections incident to this grant application will be made within the two-year construction window contemplated for this project, and additional last-mile projects will be completed, by both Bug Tussel and other internet service providers, in the years that follow.

By making the last-mile connections along the middle-mile route simultaneous to the installation of the middle-mile, it will not be necessary to perform additional construction projects along the same route. This conforms to the “dig-once” construction model, saving both time and construction expense.

g. A schedule by which the applicant intends to complete the components of the proposed project. The project period is up to 24 months.

Final route design, in conjunction with Bug Tussel’s partners, and engineering will commence immediately following the announcement of the grant award. This process will last through the end of 2022, with construction beginning in early 2023. Construction of the main-line fiber is anticipated to be completed in June, 2023, with last-mile drops and installations beginning shortly thereafter. It is Bug Tussel’s expectation that the project with be completed by June, 2024.

3.2.3 Itemized Budget (all amounts should be rounded to the nearest dollar)

- a. In addition to the Summary of Project Budget that is included as page 3, applicants should include a price list or quote for any equipment the applicant intends to purchase, including capital expenditures. The application should also indicate whether any facilities involved would be owned, rented, or leased.

At this time, Bug Tussel does not intend to purchase any equipment to facilitate construction pursuant to this grant application. All assets installed incident to this project will be owned and operated by Bug Tussel, or a related entity.

- b. The application must show that the grant, if awarded, will not subsidize the expenses of a telecommunications provider or the monthly bills of telecommunications customers. For purposes of this grant program, subsidize means a contribution to the operating costs, including profit, of the telecommunications provider.

The sole purpose of the grant contemplated herein is to facilitate the construction of fiber assets. The grant, if awarded, will not subsidize the expenses of Bug Tussel, nor will it be used to subsidize the costs paid by customers.

- c. The application must show that the grant funds requested will be used for the sole purpose of constructing broadband infrastructure in the underserved areas covered by the application. Construction of broadband infrastructure may include any of the following:

Other than the work done in formulation of this grant application, no planning, engineering, permitting, or construction has taken place. All of the costs of this project, as identified on the enclosed budget, will be incurred during the performance period.

3.2.4 Priority factors supporting the application

- a. **Matching funds.** A description of the matching funds the applicant will invest in the proposed project, if any. For each element, indicate the type of match (cash, salary expense, or in-kind contribution). If the application is submitted by a partnership, identify the partner responsible for providing each element of the proposed matching funds. *Note: The requirement for this information is satisfied via inclusion of the completed Funding Statement as page 4 of the application.*

As discussed in Section b below, through the R.O.A.D. to Digital Equality Program, and additional funding sources, Bug Tussel and its partner are pledging a total of \$4,463,040, or 80% of the total project cost.

- b. **Public-private partnerships.** If the public-private partnership is memorialized in a joint venture agreement or other writing, provide a copy of that agreement. If the partnership has not been reduced to a written agreement, provide a short description of the management role, financial commitment, or other contribution to the project for each participating partner.

To fund this project, Bug Tussel is utilizing a conduit bond issuance called the Rural Open Access Design (R.O.A.D.) to Digital Equality. In this public private partnership, the County's contribution to the project will take the form of an underlying guaranty on the bond issuance, and Bug Tussel will be responsible for all payments and costs associated with the project. Bug Tussel will own and operate all assets, and the county will benefit through free use of the fiber for governmental purposes for the lifetime of the bonds in addition to other financial considerations.

The creation of the public private partnership between Bug Tussel and Green Lake County is memorialized by an Agreement to Establish Public Private Partnership for the Purpose of Applying for a Broadband Expansion Grant (attached as **Exhibit A**).

c. Existing broadband service. A list of the broadband service providers, if any, currently serving the area the applicant proposes to serve. In scoring this element, the following factors will be taken into account:

The design of the project contemplated herein has given significant priority to areas avoided by existing internet service providers. Although the middle-mile route passes through areas with existing service, this is a necessary step to develop a reliable broadband network through the project area.

As shown on Table 1 below, several providers have some level of coverage in the project area. This coverage, however, is rarely, if ever, capable of reliably providing broadband service at speeds of 25 mbps download / 3 mbps upload. The services currently offered in the project area do not meet the needs of the residences and businesses in the project area, which is our sole motivator in undertaking this project.

Table 1. Internet Service Providers.

Service Provider	Technology Platform	Price Range	Advertised Download Speeds	Advertised Upload Speeds
CenturyLink	DSL	Unknown without service address	15 mbps	.75 mbps
Charter Communications	Cable	Unknown without service address	940 mbps	35 mbps
Northern Telephone	Fixed Wireless	Unknown without service address	25 mbps	5 mbps
Nsight	Fixed Wireless	Unknown without service address	0.7 mbps	0.4 mbps
US Cellular	Fixed Wireless	Unknown with service address	2.0 mbps	.064 mbps

Insofar as the middle-mile portion of this project is concerned, installation of the middle-mile pursuant to this project will substantially limit future construction costs related to additional last-mile projects. County governments, municipalities, commercial organizations, and economic development advocates have all identified the need for expanded middle-mile transport to meet current needs, anticipate future needs, and to promote economic development.

The design of the middle-mile route was done in cooperation with Green Lake County, wherein County officials were able to provide first-hand knowledge of existing broadband assets. This information was utilized to avoid existing areas with adequate coverage if at all possible, while still accomplishing County objectives and allowing for the development of a robust middle-mile capable of serving all of the communities throughout Green Lake County.

d. Project impact. A description of the geographic area and the population, both in terms of absolute numbers and likely users, which will be served by the proposed project. Indicate the number of anticipated residential and business customers in the project area, if known. Explain the speed and quality of internet service that will be available. Include information about the range of packages available for purchase. Provide details on any low-income access programs and steps the project will take to support adoption.

This project will have a profound impact on broadband access in Green Lake County. Of the 2,673 homes and businesses that will be able to immediately take service off the middle-mile fiber route, 1,430 are outside of metropolitan areas where broadband service is severely lacking, both in terms of access and affordability.

This expanded access will enable improvements in the lives of the residents of Green Lake County by enabling remote work opportunities, improving access to educational opportunities, and enhancing access to medical services and information.

e. Scalability. A description of how the proposed project could expand or improve the broadband service it delivers, while maintaining the quality of its broadband service. This description should include specific projected increases in the following parameters that are known at the time of the application:

Bug Tussel is undertaking a significant fiber-optic build out across Wisconsin, with proposed projects in more than 45 of the 72 counties. When completed, this will create a statewide, rural focused fiber optic network with as many as 60 redundancies between the end user and the destination of their data traffic.

For too long, networks have been designed on an ad hoc basis, connecting only those areas with significant enough population to allow for a quick return on investment. This has resulted in unreliable networks that travers through entire communities without making connections to the residents. Bug Tussel has designed networks that focus first on reliability and need, and has found that profitably follows closely when you put the community, and its residents, first.

The project contemplated herein, as part of the statewide network design, will have the capacity to serve significantly more than the 2673 homes and businesses first able to take service. There will be 5 network aggregation points along the middle-mile, allowing future projects to expand in every direction with the capacity to provide service for the totality of Green Lake County, and beyond.

Bug Tussel is installing a 144 strand transport fiber as its middle-mile. Of those 144, 24 have been given to Green Lake County through the public private *partnership. Of the remaining 120 fibers, 48 fibers will be used for transport related FTTP, fixed wireless broadband, and cellular traffic, leaving 72 fibers, or one half of the installed assets, of additional capacity for future growth and expansion.

f. Economic development. A description of how the proposed project will promote job growth or retention, expand the property tax base or improve the overall economic vitality of the municipality or region. This description may be supplemented with a letter from one or more persons discussing the potential economic impact the project could have for that individual or business. In scoring this element, the following factors will be taken into account:

County governments, municipalities, commercial organizations, and economic development advocates have all identified the need for expanded broadband and fiberoptic backbone transport facilities to meet current needs, to anticipate future needs, and to promote economic development. The presence of these facilities does not guarantee economic success but the lack of broadband and fiberoptic backbone transport guarantees the likelihood of economic stagnation and a potentially substandard economic development atmosphere. Getting access to high-speed internet can be crucial to a community's economic and social success. It helps retain and grow businesses and improves the quality of life for everyone with increased opportunities for quality education and easier healthcare. As rural businesses become more productive and thrive, so does the community's economy. The effects can be felt beyond one community, spilling into the entire region and the state.

A 2019 study by the UW-Extension noted that a 10% increase in Internet speeds at the county level leads to average increased housing values from \$230 to \$661. The study also quantified that as more households reach these increased speed, quantifiable results will be seen in higher township tax revenues.

When considering the effect of "internet coverage" one typically thinks of email and browsing the internet. The economic reality of a robust communications network is critical for the following applications:

- Law enforcement and public safety from local agencies to the FBI/CIA and FEMA.
- Educational purposes in schools and to reduce costs for school districts through online textbooks and lifelong learning processes.
- Agricultural purposes such as irrigation controls, mapping of soil conditions, amount of fertilizer needed per square meter or yard, yield mapping, monitoring cows for milk fever or bloat, asset management, logistics for fuel and commodity delivery.
- Transportation purposes such as trucking logistics and safety, railroad switching and monitoring of bearings to prevent derailments, package tracking, management of delivery routes and many others.
- Home security and automation including childcare oversight, geriatric monitoring, ambient intelligence where personal preferences are automatically implemented in a home or business, security alarms and monitoring, monitoring critical appliances such as freezers and refrigerators, sump pumps, and HVAC controls.

- Medical and health purposes such as blood clot monitoring, oversight of insulin and pain pumps, in home cancer treatments, exercise and diet monitoring, heart monitoring and automatic adjustment of pacemakers and other heart monitors, attention and communication tools for those suffering from autism, cerebral palsy or other communication limiting diseases.
- Remote delivery and transportation systems such as drones and self-driven vehicles.

Improved broadband coverage throughout Green Lake County will also enhance the many recreational opportunities available to both individuals that live in the county and to visitors to the county.

To encourage economic development and to service the needs of current and future residents, Green Lake County is banding together with Bug Tussel in a public-private partnership to create a fiberoptic network supplemented with wireless communications towers throughout Green Lake County that accomplishes the following:

1. Meets current needs for industry, healthcare, governmental and emergency management entities, education, agriculture and tourism while anticipating the future needs of those stakeholders.
2. Provides access to broadband infrastructure facilities to connect cities, villages and towns to larger networks that span the globe making Green Lake County part of the ever-developing global economy.
3. Provides superior speeds for data and other communications accessible for residents and visitors to Green Lake County that compete with major metropolitan areas and thereby “levels the playing field” for rural Wisconsin.

g. Effect upon broadband service to adjacent areas. A description of whether the proposed project will or will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed project area.

This project is about open-access expansion. In addition to compromising their reliability for the sake of profits, ad hoc networks that focus on dense, isolated population areas have a detrimental effect on future development.

Bug Tussel’s middle-mile/last-mile fiber will allow immediate access to those along the route, and it was designed not with dense population areas as the prime motivator. This will facilitate further development, by Bug Tussel and other competing broadband service providers, by greatly reducing the cost to serve even the most remote customers.

3.2.5 Other information supporting the application

a. A description of applicant’s history or experience constructing broadband communications facilities in the State and elsewhere.

As a growth oriented company with a statewide footprint, Bug Tussel has a long history of undertaking projects of this magnitude.

Through the PSC, Hilbert Communications, and its subsidiaries, have been awarded a number of grants, as shown on Table 2 below. All projects have been completed, or are in the process of being completed, within the parameters outlined in each respective grant application:

Table 2. Grant Awards.

Grant	Year	Technology	Status	Customers
Oneida County - I	2015	Fixed Wireless	Completed	199
Oneida County – II	2017	Fixed Wireless	Completed	256
Florence County	2018	Fixed Wireless	Completed	42
Oneida County – III	2018	Fixed Wireless	Completed	179
Juneau County	2018	Fixed Wireless	Completed	25
Green County	2018	Fixed Wireless	Completed	93
Oneida County – IV	2018	Fixed Wireless	Completed	169
LaFayette County	2019	Fixed Wireless	Completed	24
Green Lake County	2019	Fixed Wireless	Completed	31
Town of Deerfield	2019	Fixed Wireless	Completed	7
Oneida County – V	2019	Fixed Wireless	Pending	Pending
Kewaunee County	2020	Fixed Wireless	Pending	Pending
Menominee County	2020	Fixed Wireless	Pending	Pending
Forest County	2020	Fixed Wireless / Fiber	Pending	Pending
Green County	2020	Fiber	Pending	Pending
Iowa County	2020	Fiber	Pending	Pending
Florence County	2021	Fixed Wireless	Pending	Pending
Fond du Lac County	2021	Fixed Wireless	Pending	Pending
Iron County	2021	Fixed Wireless	Pending	Pending
Wood County – SW	2021	Fixed Wireless	Pending	Pending
Wood County	2021	Fixed Wireless	Pending	Pending
Kewaunee County	2021	Fiber	Pending	Pending
Forest County	2022	Fiber	Pending	Pending

Bug Tussel completed a number of American Rescue Plan Act Broadband Access Grant applications that were not awarded, and four of those projects will commence irrespective of the grant award. Construction on fiber-optic networks in Marathon, Waushara, Calumet, and Fond du Lac Counties will begin this spring.

b. A description of how the proposed project will or will not duplicate existing broadband infrastructure.

The project area is one where legacy providers have not continued to make the investments necessary to support modern technological advancement. As discussed above, existing access exists only in areas where profitability facilitated the investment, which leaves large geographic tracts throughout Green Lake County with little to no broadband access.

This necessitates the installation of a middle-mile, from which future expansions efforts can grow. The existing middle-mile infrastructure, in addition to being sparse, was not installed to facilitate widespread FTTP. The middle-mile contemplated here reaches far into the corners of the county, enabling low cost projects to make last mile connections.

c. A description of an applicant's financial ability to undertake the proposed broadband construction project. This may include information such as the number of years the company has been in operation, documentation of successful completion of similar infrastructure projects, evidence that sufficient funds are available to cover project expenditure and match, customer turn-over rates, and credit rating.

Bug Tussel Wireless was founded in 2003, and in 2008 joined forces with McKinley Reserve and Paul Gehl to form Hilbert Communications through a merger of seven companies. With the goal to remedy the dire need for broadband and cellular access of those living in rural communities, Bug Tussel has grown substantially in its nearly 20 year history.

The core investment group has made investments in rural wireless and broadband in excess of \$30 million and is currently completing a series of financing agreements to fund over \$500,000,000 of new capital projects through a number of joint ventures with private equity firms and public bond issuances. Consolidated revenues per Hilbert's most recent audited financial statements is nearly \$65,000,000, a doubling year on year increase.

Bug Tussel has a proven track record of operating, maintaining, and continually investing in its network to provide its thousands of rural customers with the best technologies on the market. Collaborating with partners like AT&T, Bug Tussel currently operates approximately 600 broadband and cellular sites throughout rural Wisconsin, Michigan and Iowa. Further, Bug Tussel has a rapidly expanding fiber footprint with existing fiber assets in Forest and Oconto Counties, as well as ongoing projects in Iowa, Green, Kewaunee, Marathon, Forest, Fond du Lac, Calumet, and Waushara Counties all set to be completed in 2022.

Bug Tussel and its subsidiaries can provide turnkey solutions for nearly any rural community. From site acquisition, tower construction, network operations, and sales and service, Bug Tussel can connect rural communities and keep residents competitive with larger urban centers.

Bug Tussel has been very deliberate in its network design creating significant redundancies through the use of “ring design” and a combination of over the air and fiberoptic connectivity resulting in industry high performance standards. This design and reputation resulted in the award of construction and operational contracts with AT&T for a portion of the FirstNet® National Emergency Communications Network. Bug Tussel brings the same reliability and redundancy design to an individual customer in rural Wisconsin as it does to a national emergency communications network.

Bug Tussel also believes that networks need to be sustainable and as such cannot be reliant on future grants or funding but must seek creative ways in rural markets to leverage assets. This application and our entire network leverages assets and relationships to create a superior network. Bug Tussel is in the final stages of a national build agreement with AT&T, with nearly 350 sites completed across Wisconsin and southwestern Iowa that also provides a basis for our broadband network and makes broadband possible on AT&T’s network. Since 2018, Bug Tussel has ramped its site acquisition and construction teams from 2 to 4 sites per month to up to 20 sites per month and has completed nearly 200 sites in a single year. These sites met the stringent quality standards of FirstNet and of AT&T. They also met our own stringent quality standards for each rural customer.

d. For middle mile projects, state the terms under which the applicant will make its middle mile fiber resource available to last mile providers. Without disclosing project-specific or customer-specific negotiated rates for service or access, state whether access to the middle mile fiber resource will be offered to last mile providers at a rate that is reasonable and common to the industry. Describe any restrictions or limits that may limit the availability or interconnection with the middle mile route.

Bug Tussel’s network is open to all providers, and we believe that by strategically placing the fiber in unserved or underserved areas and opening the DWDM network to other providers, that the speed of deployment for other providers who may want to use our fiber for backhaul, temporarily or permanently until their construction plans catch up, will be positively impacted.

The rates Bug Tussel intends to charge will be reasonable, and will include shorter-term lease agreements, longer-term IRUs, and fiber swap agreements. By including 5 access points throughout the middle-mile route, the capacity available for expansion will be easily accessible to any and all who may have an interest.

e. For middle mile routes, state the amount of fiber capacity, by number of fiber strands in a cable, that the applicant has been reserved for public use. Describe any commitment or tentative discussion indicating the local government or State agency that might use those fiber strands, and for what purpose. Describe any restrictions or limits that may limit the public use (e.g. a possible use conflicts with an existing program covering the same subject matter).

Through Bug Tussel’s public private partnership with Green Lake County, 24 dark fiber strands are reserved for the County at no cost. This commitment to free access for Green Lake County is contracted for 30 years.

All last-mile connections made incident to this project will be fiber to the premises. Packages available will include a symmetrical 200 mbps download / 200 mbps upload option for \$64.99, in addition to a 1 Gbps download / 1 Gbps upload option for \$99.99. Bug Tussel is an Affordable Connectivity Program participant, with dedicated staff available for assistance, meaning support and connectivity for low-income residents is readily achievable.

Moreover, Bug Tussel engaged with Green Lake County in the planning stages of this grant application to design a network that accomplishes numerous County objectives, better allowing the County to utilize the fiber they are given.

f. A description of how the proposed project will affect the ability of individuals to access health care service from home, including any impact upon the costs of those services.

National studies provide evidence of cost savings with the use of telehealth services. In a pre-COVID-19 study of 40,000 Cigna beneficiaries, the 20,000 beneficiaries who used the MDLive telehealth platform had 17% lower costs when compared with non-virtual care. Virtual care users also experienced a 36% net reduction in ED use per 1,000 people compared to non-virtual care users (Healthcare IT News). The National Committee for Quality Assurance (NCQA) Report of the Taskforce on Telehealth Policy discusses a variety of evidence that the use of telehealth services lowers the overall cost of care. We are confident that this national data can be extrapolated to this project area. Considering that in-person health care services are 20 or more miles away for many residents Green Lake County, use of telehealth also results in savings related to travel and time away from work or school.

g. A description of how the proposed project will affect the ability of students to access educational opportunities from home.

There are many online educational programs currently available for students of all ages in the project area. Several school districts have on-line learning labs, where a student can be physically located in their high school but take a class for college credit. While K-12 schools have largely returned to in-person instruction, some families prefer an on-line option. With improved internet access, families in the project area may wish to open-enroll in accredited online schools such as Acellus Academy, Virtual Charter Schools, or the Wisconsin Connections Academy..

Adult professional continuing education has made a major shift to online course delivery, and will be aided by this project. Rural health care providers at all levels, from nursing assistants to sub-specialty physicians, REALTORS, HVAC technicians, accountants, firefighters, childcare providers and others need access to highspeed internet for continuing education to maintain credentials and improve skills.

h. A description of actions taken by a city, village, town, or county in support of the grant application that have not been discussed in the context of a public-private partnership above, including but not limited to:

This project is the result of a true partnership between Bug Tussel and Green Lake County. From planning and design forward, Bug Tussel and the County have been engaged, and will continue to be engaged to complete the shared goal of expanded broadband access throughout Green Lake County.

Moreover, Bug Tussel will continue to partner with Green Lake County following the completion of the construction project. Bug Tussel works diligently to level the playing field so that rural areas can utilize the same types of services as urbanized areas and therefore able to fully compete economically and socially to attract and retain residents and businesses. Through its community outreach component, Bug Tussel University, Bug Tussel will work with Green Lake County to provide educational seminars ranging from basic classes (“How to use the internet” and “How to use social media”) to more advanced curriculum. Bug Tussel University personnel are always very engaged in the communities in which Bug Tussel operates, seeking user feedback on ways to assist them in connecting technology and the community.

i. Letters and messages in support of the application submitted by prospective customers, local government officials, and other interested persons.

Please see the attached Letters of Support from state congressional members in support of this applications, collectively attached as **Exhibit B**.

EXHIBIT LIST

- A. Agreement to Establish Public Private Partnership for the Purpose of Applying for a Broadband Expansion Grant**
- B. Letters of Support**

Exhibit A to Resolution

AGREEMENT TO ESTABLISH PUBLIC PRIVATE PARTNERSHIP FOR THE PURPOSE OF APPLYING FOR A BROADBAND EXPANSION GRANT

THIS PUBLIC PRIVATE PARTNERSHIP AGREEMENT ("Agreement") is made this 16th day of February, 2022 ("Effective Date") by and between Green Lake County, Wisconsin (the "County"), a political subdivision of the State of Wisconsin, and Hilbert Communications, LLC, a Wisconsin limited liability company ("Hilbert"). The County and Hilbert are collectively referred to as the "Parties".

RECITALS

- A. The County seeks to promote development of high-speed broadband services to unserved and underserved areas within its boundaries and believes that cooperation with private-sector partners is necessary for the development of a county-wide broadband network that meets the needs of the County, its resident, and its businesses.
- B. To encourage and facilitate deployment of high-speed broadband service in unserved and underserved areas within the County, the County and Hilbert seek to enter into a public-private partnership to construct broadband infrastructure to facilitate the future development by Hilbert and/or other third-party internet service providers (the "Project").
- C. The full scope of the Project is yet to be defined but will be defined in the final partnership agreement between the Parties ("Final Partnership Agreement").
- D. The Parties intend that Hilbert, with the County as its public partner, apply to the State of Wisconsin Broadband Expansion Grant Program ("Grant Program") to obtain a grant to be used to pay for a portion of the cost of constructing the Project.
- E. The County finds the Project to be in the public interest of the residents and businesses of Green Lake County.

AGREEMENT

THE PARTIES agree as follows:

- 1. **Purpose.** By this Agreement, the County and Hilbert agree to form a public-private partnership so that Hilbert can apply to the Grant Program to obtain funds to be applied toward construction of the Project. The County agrees that, as Hilbert's public partner, it will cooperate with Hilbert in preparation of the grant application.
- 2. **Project.** The Project will be developed by Hilbert. The estimated cost of the Project is \$10,000,000.
- 3. **Project Funding.** In its grant application, Hilbert shall request a grant for Twenty Percent (20%) of the estimate project cost. If the Grant is awarded and if the Project receives final

GREEN LAKE COUNTY

The undersigned Green Lake County officials have executed this Agreement pursuant to duly adopted Resolution No. 100 day February, 16, 2022.

Harley Reabe
Harley Reabe, Chairman

Green Lake County Board of Supervisors

Attest:

Elizabeth A. Otto
Elizabeth A. Otto, County Clerk

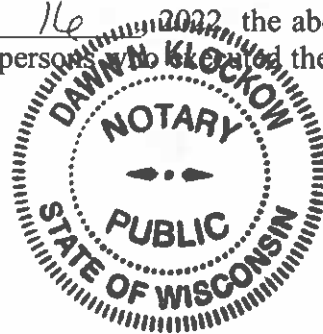
STATE OF WISCONSIN)
) SS.
GREEN LAKE COUNTY)

Personally, came before me on February, 16, 2022, the above named Harley Reabe and Elizabeth A. Otto, to me known to be the persons who executed the foregoing instrument and acknowledge the same.

Dawn N. Klockow

Notary Public, State of Wisconsin

My Commission Expires: is permanent



HILBERT COMMUNICATIONS, LLC

[Signature]

Dated: 3/7/2022

Attest:

Alicia R. Broeren
Notary Public

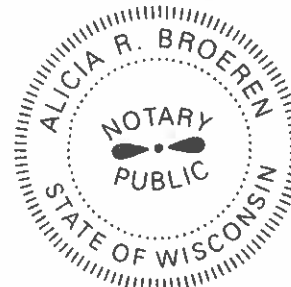
STATE OF WISCONSIN)
) SS.
BROWN COUNTY)

Personally, came before me on March 7th, 2022, the above named Mitchel Olson, to me known to be the persons who executed the foregoing instrument and acknowledge the same.

Alicia R. Broeren

Notary Public, State of Wisconsin

My Commission Expires: 10.24.22





WISCONSIN LEGISLATURE

P. O. Box 7882 Madison, WI 53707-7882

March 17, 2022

Steffany Powell Coker
Secretary to the Commission
Public Service Commission of Wisconsin
North Tower, 6th Floor
Hill Farms State Office Building
4822 Madison Yards Way
Madison, Wisconsin 53705

RE: Support for the Bug Tussel Wireless Broadband Grant Application for Green Lake County

Dear Ms. Powell Coker,

It is our pleasure to write in support of the Bug Tussel Wireless Broadband Expansion Grant application.

As the state senator for the 14th Senate District and state representative for the 41st Assembly District, which includes Green Lake County, we fully understand the need for high-speed internet providers in rural, underserved communities. Internet access helps boost local economic development, allows students and families to study and work online, and creates a better technological landscape for telemedicine.

A well-facilitated broadband expansion in this area will help 2,539 homes and 134 businesses. Bug Tussel Wireless has been serving the area for years. Their service reputation has always been excellent, and we are confident they will be a good provider. We support them in their plans to expand broadband access to this area and address the need for high-speed internet access in rural communities.

We ask that you seriously consider the application, which will bring great value to the 14th Senate District, 41st Assembly District, and Wisconsin.

Please do not hesitate to contact us should you have additional questions.

Sincerely,

Joan Ballweg
State Senator
14th Senate District

Alex Dallman
State Representative
41st Assembly District